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| 10/588,002 | 08/01/2006 | Tsutomu Ogawa | 107355-00163 | 1391 |
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| ARENT FOX LLP 1050 CONNECTICUT AVENUE, N.W. SUITE 400 WASHINGTON, DC 20036 | | | EXAMINER BROWN, DREW J | |
| | | | ART UNIT 3616 | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DCIPDocket@arentfox.com
IPMatters@arentfox.com
Patent_Mail@arentfox.com

Office Action Summary

Application No.

10/588,002

Applicant(s)

OGAWA ET AL.

Examiner

DREW J. BROWN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/1/06 (preliminary amendment).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 8/1/06, 6/5/08, & 4/25/08.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recitation that the stabilizer is fixed to the right and/or the left reinforcement member renders the claim indefinite because it is unclear to the Examiner how the stabilizer is fixed to the reinforcement members; it appears, according to Figure 12, that the stabilizer is attached at attachments 77, which are arranged above the reinforcement members.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ihara (JP 2000-177621; as cited by applicant) in view of Kubota et al. (JP 11-208503; as cited by applicant), Yamamoto et al. (U.S. Pat. No. 6,679,523), and Kokubu et al. (JP 2,690,544; as cited by applicant).

Ihara discloses a front subframe (20) that is formed substantially into a rectangular shape and which comprises a front (23) and rear (24) cross member, left and right front joint portions (30) which are connected to left and right end portions of the front cross member (Figure 2), left and right longitudinal members (31) extending from respective front joint portions (Figure 2), and left and right rear joint portions (32) which connect to distal ends of the left and right

longitudinal members and the rear cross member (Figures 1 and 2), where the left and right longitudinal members are made of an aluminum alloy wrought product (paragraph 3).

Ihara does not disclose that the front subframe supports drive train parts including a power supply, steering system parts including a steering gear box and suspension system parts including a front suspension. Kubota et al., however, disclose that a front subframe supports drive train parts including a power supply (30) and steering system parts including a steering gear box (Figures 1 and 5) supported on the rear cross member (Figure 1), and Yamamoto et al. disclose that a front subframe supports suspension parts including a front suspension (Figure 11). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have a power supply, steering gear box, and a front suspension supported by the front subframe, since it was well known to anybody of ordinary skill in the art that motor vehicles include these components.

Ihara discloses that the subframe is an extrusion of an aluminum alloy but is not a combination of die casting of an aluminum alloy and an expanded product of an aluminum alloy, where the left and right front joint portions and the left and right rear joint portions are made of an aluminum alloy die-cast product. Kokubu et al. discloses a subframe (20) having a front transverse member (21) formed from a press formed product of aluminum to achieve a weight reduction and some degree of rigidity, and right and left longitudinal members (41 and 51) and a rear transverse member (31) formed from an aluminum casting to impart necessary rigidity to the frame (page 2, column 3, lines 34-46; Figures 3 and 4). Kokubu et al. thus disclose the technical concept of using an aluminum alloy casting and an expanded product of an aluminum alloy separately in accordance with the degree of rigidity required of the subframe; therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Ihara in view of the teachings of Kokubu et al. to try forming the left and right front joint portions and the left and right rear joint portions out of an aluminum alloy die-cast product in accordance with the degree of rigidity required of the subframe. With respect to claims 4 and 5, for the same reasons as discussed above, it would have been obvious to try forming the rear cross member of an aluminum die cast product, the left and right rear joint portions and the rear cross members integrally of an aluminum die cast product, and the front cross member and the left and right longitudinal members of an aluminum alloy extruded

product. Also, die casting is a type of casting that was well known in the art at the time the invention was made.

With respect to claim 2, Ihara, as modified, discloses that the left and right longitudinal members are divided into left and right front divided portions (divided at portion 31a) and the left and right rear divided portions and the left and right rear joint portions are made integrally (Figure 1) of an aluminum alloy die cast product, and in that left and right reinforcement members (222; Yamamoto et al.) extend from the respective front divided portion to the respective rear joint portion so that the reinforcement members are fixed to the respective rear divided portion and the rear joint portion (Figure 12; Yamamoto et al.). Although Yamamoto et al. does not specifically disclose that the reinforcement members are formed of an aluminum alloy wrought product, it would have been obvious to one of ordinary skill in the art to form them of an aluminum alloy wrought product, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice.

With respect to claim 3, Yamamoto et al. also disclose that a stabilizer (207) is fixed to the left rear joint portion and the left reinforcement member and/or the right rear joint portion and the right reinforcement member, whereby the stabilizer is made to be fixed in such a manner as to straddle the die-cast product and the wrought product.

5. Claims 6, 7, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ihara, Kubota et al., Yamamoto et al., and Kokubu et al. as applied to claims 1-5, 8, and 9 above, and further in view of Tsubota et al. (U.S. Pat. No. 5,104,142).

The combination of Ihara, Kubota et al., Yamamoto et al., and Kokubu et al. discloses the claimed invention as discussed above but does not disclose an adjusting mechanism joined at a location formed of an aluminum alloy die cast product. Tsubota et al., however, discloses an adjusting mechanism joined to the front subframe at a location that the front suspension is supported, a positioning mechanism is adapted to position the front subframe on the body side formed integrally with the location to which the adjusting mechanism is joined (Figure 1). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the invention of Ihara in view of the teachings of Tsubota

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et al. to have an adjusting mechanism joined to the front suspension to modify the camber of the vehicle wheels, since it was well known to anybody of ordinary skill in the art that motor vehicles include adjusting mechanisms associated with the front suspension.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mikasa et al., Aoki, Matsumoto et al., Frasch et al., Satou, Suzuki, Yamamoto et al., Ogawa et al., Sekiguchi, Oku et al., Miyahara, and Fujiki et al. disclose similar subframes.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DREW J. BROWN whose telephone number is (571)272-1362. The examiner can normally be reached on Monday-Thursday from 8 a.m. to 4 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley D. Morris can be reached on 571-272-6651. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Drew J. Brown
Examiner
Art Unit 3616

db
7/3/08
/Ruth Ilan/
Primary Examiner, Art Unit 3616